

I CLAIM:

1. A cable assembly comprising:
an insulating housing defining a plurality of channels; and
a plurality of first and second circuit modules juxtaposed staggeredly in the housing, each first circuit module comprising a first circuit board received in a corresponding channel of the housing and a plurality of first cables connecting to the first circuit board, each second circuit module comprising a second circuit board received in a corresponding channel of the housing and a plurality of second cables connecting to the second circuit board.
2. The cable assembly as described in claim 1, wherein each first cable is a single-ended coaxial cable comprising an insulated conductive core, a metal braid surrounding the insulated conductive core, and a jacket outside the metal braid, and wherein each second cable comprises a differential pair of wires and a grounding wire.
3. The cable assembly as described in claim 2, wherein the first circuit module comprises a cable clamp bonding the first cables and a first grounding plate having a plurality of tabs and wherein the first circuit board defines a plurality of through holes receiving the plurality of tabs.
4. The cable assembly as described in claim 3, wherein the first grounding plate is soldered with the metal braids of the first cables.
5. The cable assembly as described in claim 2, wherein the second circuit module comprises a cable clamp bonding the second cables and a second planar grounding plate.
6. The cable assembly as described in claim 3, wherein each cable clamp

comprises a first and a second stamped metallic sections clamping the first cables from opposite sides.

7. The cable assembly as described in claim 6, wherein the first section of the cable clamp defines a plurality of rooms and the first cables are depressed into the rooms by the second section.

8. The cable assembly as described in claim 7, further comprising a fastening means, and wherein each cable clamp defines at least one through hole aligned with each other for insertion of the fastening means.

9. A cable assembly comprising:

an insulating housing comprising a plurality of channels and an aperture extending along a direction perpendicular to the channels;

a plurality of first and second circuit modules staggeredly arranged in the housing, each module comprising a circuit board retained in a corresponding channel of the housing and defining therethrough a hole aligned with the aperture of the housing, each first circuit module comprising a plurality of first cables electrically connecting to one side of the circuit board and a first grounding plate attached to an opposite side of the circuit board, each second circuit module comprising a plurality of second cables electrically connecting to one side of the circuit board and a second grounding plate attached to an opposite side of the circuit board;

a cover comprising first and second halves jointed together and attached to the housing, the cover defining a bore extending through the first and second halves; and

first and second fastening elements respectively inserted into the holes of the circuit boards through the aperture of the housing and into the bore of the cover for retaining the circuit modules in position.

10. The cable assembly as described in claim 9, wherein two adjacent second circuit modules are sandwiched between two first circuit modules.

11. The cable assembly as described in claim 9, wherein the first cables are coaxial cables for transmitting single-ended signals, and wherein the second cables are for transmitting differential pairs of signals.

12. The cable assembly as described in claim 9, wherein each circuit board of the first circuit modules defines a plurality of cavities and the first grounding plate has a plurality of tabs extending from a periphery thereof and retained in corresponding cavities of the circuit board.

13. The cable assembly as described in claim 9, wherein each circuit module further comprises a cable clamp bonding the cables together, the cable clamp defining a through hole.

14. The cable assembly as described in claim 13, further comprising a third fastening element inserted into the through holes of the cable clamps.

15. A cable assemble comprising:

an insulative housing defining a plurality of channels;

a plurality of juxtaposed first and second printed circuit boards mixed up and alternately, in a predetermined format, arranged with each other with front edge regions received in the corresponding channels, respectively; and

a plurality of first and second sets of cables respectively connected to rear edge regions of said first and second printed circuit boards; wherein

each set of the first sets of cables is grouped, according to electrical

characters thereof, to form a first number of groups, and each set of the second sets of cables is grouped, according to the electrical characters thereof, to form a second number of groups, said first number being different from said second number.

16. The assembly as described in claim 15, wherein said set of the first sets of cables is of single-ended cables and divided into four groups, while said set of the second sets of cables is of differential pairs cables and divided into five groups.

17. The assembly as described in claim 16, wherein each set of said first sets of cables and second sets of cables are secured in each corresponding set by a cable clamp.

18. The assembly as described in claim 17, wherein said cable clamp used for the first sets of cables and that for the second sets of cables are same with each other.